

Its aspect and general tint recall the half-forgotten *D. stramineus* of Gmelin, a shell fairly defined, from its combined figure and description, by Schröter. It does not display, however, the purple stain on the hinder slope, and widely differs in outline. The grooves are feebly decussated by minute radiating lines at the broader end (which is oblique, rounded below).

Darwin's figure of *Lepas crassa* conveys the impression of the general shape (except the posterior outline) of this very rare shell, of which I have never seen but one example.

*DONAX IMPAR*, n. sp. (Plate XII. fig. 4.)

Testa parva, maxime inæquilateralis, valde elongata, compresso-cylindracea, antice rotundato-acuminata, postice brevissima et abrupte truncata, candida, polita, omnino lævis, nisi ad aream posticam planam aut concavam, ubi concentrice est sulcata. Margo dorsalis anticus vix declivis; margo ventralis haud crenulatus.

Long. 0·7, lat. 0·2 poll. *Hab.* Beloochistan (*Blanford*).

The nearest approach to this remarkably elongated shell is *D. Owenii*; but the present is still more inequilateral. I possess only a single valve; but as it is in fine preservation, and as in the section *Machærodonax* both valves are alike, I venture to describe it; the colour, however, may vary.

In the plate I have added a few illustrations of species of *Leptomya* &c. hitherto unfigured.

#### DESCRIPTION OF PLATE XII.

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| Fig. 1. <i>Donax Mesodesmoides</i> , n. sp.,<br>nat. size. | Fig. 7. <i>L. spectabilis</i> , slightly enlarged.  |
| Fig. 2. <i>D. Listeri</i> , n. sp., nat. size.             | Fig. 8. <i>L. cochlearis</i> , Hinds, nat. size,<br>from unfigured type in the British<br>Museum. |
| Fig. 3. <i>D. flavidus</i> , n. sp., enlarged.             | Fig. 9 to 12. <i>Teredo uticulus</i> , Gmel.,<br>valves and pallets, the latter en-<br>larged.    |
| Fig. 4. <i>D. impar</i> , n. sp., enlarged.                |   |
| Fig. 5. <i>Leptomya gravis</i> , Hanley,<br>nat. size.     |   |
| Fig. 6. <i>L. psittacus</i> , Hanley, nat. size.           |   |

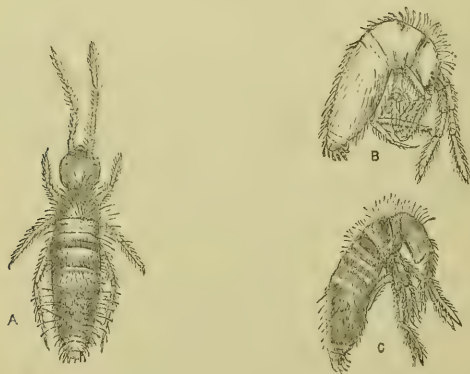
On a new Genus of Collembola (*Sinella*) allied to *Degeeria*,  
Nicolet. By GEORGE BROOK, F.L.S.

[Read June 15, 1882.]

THE genus *Degeeria* was founded by Nicolet, in 1842, for the reception of those species of the old Linnean genus *Podura* which have the antennæ shorter than the body, consisting of four subequal segments and a minute basal ring, abdomen tapering, with the fourth abdominal segment longer than the three preceding taken together. The specimens here described were collected

in December last, and, after a cursory examination with a pocket-lens, were labelled *Degeeria lanuginosa* (Nicolet), on account of the absence of markings and the very thick clothing of hairs, especially on the thorax. As I was engaged on a revision of Nicolet's genus, they were kept alive for further observation. It was soon found, however, that my specimens differed in several important points from Nicolet's species. Instead of having eight lenses in each eye-patch, I could only find two lenses on each side, and each on a separate patch. The structure of the claws and spring also presented characters which did not agree with the diagnosis of *Degeeria*. In the course of a few days faint fulvous patches began to appear on my specimens; and in a week more some of them were quite dark fulvous, with a few lighter dorsal patches. This colour is not distributed in more or less sharply defined spots and patches, as is usual in those species of *Degeeria* which have markings, but the general body-colour becomes a rich fulvous, darker laterally, and shading off to the median dorsal line. The specimens were also armed with a kind of curved clubbed setæ on the abdomen, quite different from the setæ of any species of *Degeeria* with which I am acquainted. For these reasons, and after a careful comparison with allied British species, I feel justified in proposing a new genus for the reception of these specimens.

Fig. 1.



*Sinella curviseta*, n. sp. A. Full-grown insect, showing distribution of colour-patches,  $\times 16$ . B. Pale specimen, showing position of eye-patches,  $\times 16$ . C. Dark specimen, showing patches of colour and shape of third abdominal segment,  $\times 16$ . Drawn from enlarged photographs and specimens mounted on microscopic slide.

## SINELLA, nov. gen.\*

*Head* quite as broad as long, a little protruded between the antennæ. *Eyes* situated near the base of the antennæ, four in number, two on each side, each lens situated on a separate patch, the upper one rather larger than the lower and irregular in outline. *Antennæ* composed of four segments with a rudimentary fifth as in *Degeeria*: first longer than is usual in *Degeeria*, about one third the length of second; second usually a little longer than third; fourth about twice as long as third: proportional length of segments varies, however, a little in different individuals. *Prothorax* small, entirely hidden by the mesothorax above. *Mesothorax* large, narrower anteriorly. *Metathorax* shorter than the second. *First abdominal segment* quite small, difficult to see in some specimens, unless the insect is laid on its side. *Second abdominal segment* about three times as long as first. *Third abdominal segment* twice as long as second; below produced posteriorly under the fourth for half its length. *Fourth abdominal segment* nearly as long as the thorax and first three segments of the abdomen taken together, tapering slightly posteriorly. *Fifth and sixth abdominal segments* small. *Spring* always reaching the ventral tube, which in the living insect is usually clasped by the terminal segments. *Manubrium* about as long as the *dentes*, scarcely tapering. *Dentes* tapering, slightly crenate along the margin and corrugated across as in *Degeeria*; towards the extremity each of the *dentes* splits up into three parts, the outer two of which seem to form a sheath, ciliated along their margins; the inner one bears the *mucrones*. *Mucrones*, seen from above, almost straight; seen laterally, scimitar-shaped, consisting of two lobes. *Claws of first pair of legs*—*Large claw* curved, and bearing a large tooth about the centre of its inner margin, and two small ones between that and the tip; sometimes the small teeth are very indistinct, and only appear as an unevenness in the margin. *Lower claw* spatulate, about half as long as the upper one, and without teeth: there is no tenent hair properly so called; but its place is taken by a strong hair of the ordinary kind. *The head and thorax* are thickly covered with bristles, which are bent forwards on the head and outwards on the thorax; they get gradually thicker towards the tip, when they suddenly come to a point; finely ciliated along the margin. *Terminal segment of the abdomen* covered with short thick clubbed bristles, which are bent inwards and strongly ciliated.

It will be seen from the above description that the species here described, and for which I propose a new genus, differs from all other described species of Collembola, the *Isotoma quadrioculata* of Tullberg excepted, in having two eye-patches on each side. From the genus *Degeeria* of Nicolet, to which perhaps it is nearest allied, it differs in the following points:—

\* I have named the genus after Mr. J. Sinel of Jersey, who has been very assiduous in the collection of specimens of Collembola for me.

1. In the number of eyes, which in *Degeeria* are 8 in each group.

2. In the absence of a true tenent hair on each foot.

3. In the almost total absence of those long fine abdominal hairs set at right angles to the body so characteristic of *Degeeria* and *Orchesella*.

4. In the possession of a thick covering of strong, thickly ciliate, clubbed hairs on the sixth abdominal segment, unlike any hairs of this group with which I am acquainted.

5. In the rather different construction of the mucrones.

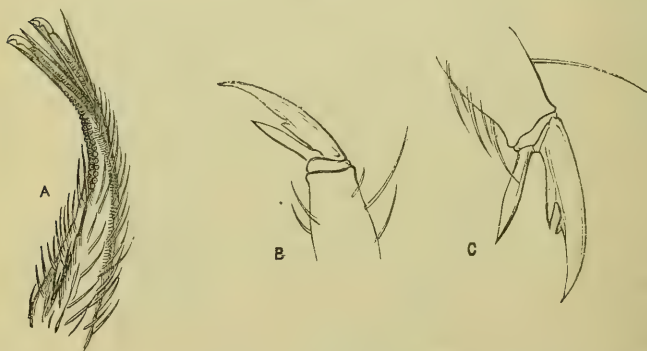
From *Isotoma* of course it differs in the general shape of the body, but agrees with it in the absence of tenent hairs. From *Sira* it differs in the absence of scales, and also in those points mentioned under *Degeeria*. From *Corynothrix* of Tullberg this genus differs in the proportional length of the abdominal segments, as well as in the points mentioned under *Degeeria*.

*SINELLA CURVISETA*, n. sp.

The species described was found under boards in a vinery at Huddersfield\* in December 1881, and has been kept in confinement since that time (six months). Young and immature though in some cases full-grown specimens are of a uniform pale yellow colour, paler on the spring and legs.

Such specimens might easily be taken at a glance for *Degeeria lanuginosa* of Nicolet.

Fig. 2.



*S. curviseta*. A. Lateral view of mucrones,  $\times 200$ . B. Claws of third pair of legs,  $\times 200$ . C. Claws of first pair of legs,  $\times 200$ . From enlarged photographs and mounted specimens.

\* Since the above was in print I have received a specimen of this species from Miss Garrod, who found it in a similar locality in London.

Darker intermediate forms occur, more or less spotted and patched with a fulvous brown. The type is of a uniform fulvous brown colour, excepting the central portion of the posterior part of the mesothorax and the metathorax, and the upper central portion of the first abdominal segment. The third segment of the antennæ is often fulvous.

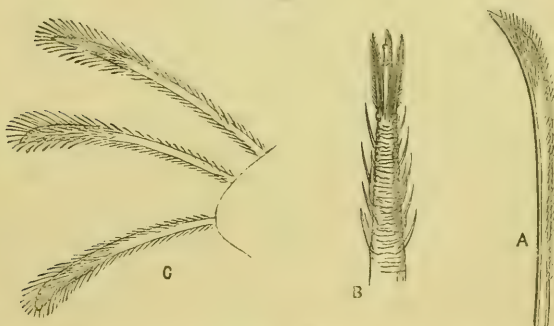
The following are a series of approximate measurements of a full-grown individual:—

	inch.		inch.
Length of body.....	$\frac{1}{10}$	Length of spring .....	$\frac{1}{30}$
„ abdom. & thorax	$\frac{2}{11}$	Width of 3rd abdom. segm.	$\frac{1}{58}$
„ head.....	$\frac{1}{78}$	„ head .....	$\frac{1}{75}$
„ antennæ .....	$\frac{1}{35}$		

This species is rather active, and seems to live well in confinement. Eggs were laid early in January, apparently singly. They were spherical, white, and not very shining, faintly and widely wrinkled. A depression with a raised rim round it occurs at both ends, as figured by Nicolet.

On January 23rd a young, apparently recently hatched individual was observed. The head was large and slightly broader than the thorax. Antennæ large, with first three segments subglobular; fourth joint thick and fusiform, nearly as long as the other three together. Spring reaching the ventral tube. Colour white, with two distinct eye-spots on each side.

Fig. 3.



A. Clubbed hair from thorax of *S. curviseta*,  $\times$  about 120. B. Spring of *Sinella*, vertical view, showing the division of the dentes into three parts, one of which bears the mucrones,  $\times$  200. C. Clubbed hairs from sixth abdominal segment of *Sinella*,  $\times$  about 150; these are usually bent under the abdomen. From enlarged photographs and mounted specimens.